74th OREGON LEGISLATIVE ASSEMBLY - 2007 Regular Session **MEASURE: HB 3099 A**
STAFF MEASURE SUMMARY **CARRIER: Rep. Greenlick**
House Committee on Health Care

REVENUE: No revenue impact
FISCAL: No fiscal impact

Action:		Without Recommendation as to Passage and Be Printed Engrossed
Vote:		5 - 3 - 1
	Yeas:	Bruun, Cannon, Gelser, Kotek, Greenlick
	Nays:	Bonamici, Maurer, Richardson
	Absent:	Flores
Prepared By:		Sandy Thiele-Cirka, Administrator
Meeting Dates:		4/3 (Policy sub), 4/20 (Full), 4/27 (Full)

WHAT THE MEASURE DOES: Requires the Department of Human Services (DHS) to adopt rules to implement department's responsibilities regarding drinking water and to ensure public health. Requires DHS to require that water supplies serving more than 10,000 persons add fluoride to drinking water. Allows DHS to temporarily exempt a water supplier from the requirement if the department determines supplier has sufficient funds for fluoridation equipment other than from fees, taxes or charges to ratepayers, local taxpayers and others. Prohibits cities, counties and other municipalities from enacting ordinances or provisions that restrict fluoridation of water as outline in the Act.

ISSUES DISCUSSED:
- Fluoride as a supplement
- Concerns relating to efficacy and safety of fluoridation
- Local decision-making on fluoridation
- Environmental Protection Agency (EPA) fluoride standards
- Water fluoridation efficacy and effectiveness
- Lack of scientific studies and data on fluoridation
- EPA's drinking water regulations versus fluoridation
- Current chemical levels in drinking water
- Center for Disease Control and Prevention regulatory responsibilities
- The need to allow local water districts and their boards to respond to the concerns of their communities
- Overview of recent research relating to fluoride and osteosarcoma in young boys
- Current forms and dispensing of fluoride in water systems
- Fluoride as a toxin versus supplement

EFFECT OF COMMITTEE AMENDMENT: Specifies that taxes, in addition to fees or charges, cannot be used to purchase fluoridation equipment.

BACKGROUND: Tooth decay, also known as dental caries, is a health problem that has plagued humankind for centuries. Until as recently as 60 years ago, the damage caused by caries was an inevitable fact of life for most people. Proponents of fluoridated water assert that fluoridation, in water levels of .07 – 1.2 parts per million (ppm) results in up to 50 percent less decay in children's teeth and up to 35 percent less decay in adult teeth. Naturally fluoridated water in levels greater than 0.7 ppm are found in 3,784 public water systems serving 10 million people in 1,924 communities nationwide. Oregon ranks 45th in the nation in terms of fluoridation, with fluoride in just 24 percent of its public drinking water. The Journal of Public Health Dentistry reports that prevention of dental caries, largely attributed to fluoridation and fluoride containing products, saved $39 million (1990 dollars) in dental care expenditures in the U.S. during 1979 – 1989. Water fluoridation prevents tooth decay two ways: primarily through direct contact with teeth throughout life, and when consumed by children during the tooth forming years. The most inexpensive way to deliver the benefits of fluoride to all residents of a community is through water fluoridation. When a community fluoridates its water, it

adjusts the level of fluoride in the water to the optimal level for preventing tooth decay. Currently, more than 170 million people in the United States using public water supplies drink water containing enough fluoride to protect teeth. All water naturally contains some fluoride. The American Dental Association, Centers for Disease Control and Prevention, and American Public Health Associations, and American Association of Public Health Dentistry are among the groups that support water fluoridation. Other sources of fluoride are also available; fluoride can be applied directly to teeth through toothpaste and mouth rinses, and professionally-applied fluoride treatments available in dental offices. These methods of delivering fluoride are more expensive than water fluoridation and require a conscious decision to use them.

Opponents of water fluoridation cite studies on the toxicity of fluoride, lack of evidence that fluoridated water significantly reduces caries, and on negative environmental impacts of fluoride. Research from Canada and other sources notes that areas with fluoridated water have increased risk of skeletal fluorosis, a condition where accumulated fluoride make bones weak and brittle, and in dental fluorosis, a condition where too much fluoride causes mottling of the teeth. Research also indicates that certain populations may be more susceptible to the toxic effects of fluoride, including the elderly, people with calcium, magnesium and/or vitamin C deficiencies, and, people with cardiovascular and kidney problems. An Ontario Ministry of Health report notes evidence of skeletal and dental flourosis in relationship with fluoridated water, and the lack of evidence that water fluoridation is effective in reducing tooth decay in children. A University of York (Britain) study reported that water fluoridation is not safe, that there is lack of evidence that fluoridation has significantly improved dental health, and that the cost-effectiveness of fluoridation is inconclusive. Opponents also note that exposure to fluoride is increasing to dangerous levels from ingesting food products manufactured with fluoridated water or fluoride-related substance, and from environmental toxins such as fluoride released in air pollution. Several studies note that fluoridated water has a detrimental impact on salmon and other fish; one found that low levels of fluoride in soft water has an anesthetic affect on fish, which impedes the ability of salmon to climb fish ladders. In the study, 50 percent of salmon died when even low levels of fluoride were found in the water. When fluoride emissions were reduced, the salmon death rate was cut by a factor of 10.

Recently, a number of studies regarding water fluoridation and osteosarcoma have been published. At this time, the weight of the scientific evidence, as assessed by independent committees of experts, comprehensive systematic reviews, and review of the findings of individual studies does not support an association between water fluoridated at levels optimal for oral health and the risk for cancer, including osteosarcoma.